



**NOAA  
FISHERIES**

# Northwest Fisheries Science Center Annual Guidance Memorandum for Fiscal Year 2020

## OVERVIEW

Our Annual Guidance Memorandum, or AGM, outlines the Center's priorities for Fiscal Year 2020 (FY20). We, the Center Leadership Team (LT), aligned these priorities with the goals outlined in the Department of Commerce, NOAA, NOAA Fisheries, and NOAA Fisheries West Coast strategic plans.

In setting this year's priorities, we relied heavily on the Annual Project Prioritization (APP) and the [Vivid Description implementation plan](#). Details on the FY20 APP are contained in this document. Within the vivid description implementation plan, we further relied on four [priority objectives](#) we identified at a Leadership Team retreat in June 2019 and subsequently shared and discussed with all. Those four priority objectives are robust science planning, develop excellent people, build resilient and efficient administrative support services, and strive for a fair and adaptable organization. We chose these four priority objectives because they create a foundation enabling us to better tackle the remaining objectives outlined in the implementation plan in future years.

We organized the AGM around the four sections of the [Vivid Description of the Future](#). We discuss our FY20 priorities within each of those four areas:

### 1. Science in Service

- Robust science planning (*priority objective*)
- Science to support NOAA Fisheries' mission
  - Sustainable fisheries including aquaculture*
  - Protected resources including habitat*
- Regional work plans and research themes

### 2. Organizational Excellence

- Develop excellent people (*priority objective*)
- Build resilient and efficient administrative and support services (*priority objective*)
- Strive for a fair and adaptable organization (*priority objective*)

### 3. State of the Art Habitats for Science and People

- Analyze Montlake alternatives
- Mukilteo new construction

### 4. Partnerships, Public Outreach and Education

Communicate and engage  
Promote effective collaboration and relationships

We included information about our FY20 budget and staffing outlook at the end of this document. You may find it useful context.

## PRIORITIES

### 1. Science in Service

#### ***Robust science planning (priority objective)***

**The Center Leadership Team (LT) executed its third full fledged APP for FY20 to prioritize 167 projects identified by staff.**

Scoring was performed by all LT members as well as two guest reviewers (one each from the West Coast Region and Fisheries headquarters) using the [FY20 Criteria for NWFSC Activity Assessment](#) matrix. Projects were sorted into the ten [Project, Program, and Activity](#), or PPAs, of appropriated NMFS dollars that fund the Center, plus an additional categories for reimbursable funded projects, [using the FY19 base allocation](#) as a starting point. Note that the FY19 base allocations are all “taxed” to create the Center’s internal fund for management, administration, and common services.

Projects with multiple funding sources were placed into the group with their largest source of funding. Within each group, projects were ranked according to their mean score from all the reviewers. The LT then discussed each group of projects by funding source. Discussion focused first on the top ranked projects and confirming that those projects represent Center priorities within each funding group. The discussion then focused on the lowest ranked projects to identify where resources, people and/or dollars, might be redirected toward priorities.

Finally, the rankings were used to inform decisions around the annual staffing plan, discretionary resources, and Base Resource Review (BRR) proposals to the NMFS Science Board. The purpose of the BRR process is to determine whether funds within NMFS can and should be redirected to critical high priority research activities that are underfunded.

Based on a combination of scores and other considerations, the LT identified several lower priority projects to wind down and redirect resources toward higher priority projects. In each case, the relevant Division Director will work with the personnel and/or the dollars involved on these redirections.

**The LT also selected robust science planning as a *priority objective* for FY20 from the [Vivid Description implementation plan](#).** In the plan, we identified several measurable tasks that can boost our overall science and research planning efforts including:

- Identify directions for future research and develop a long-term research agenda. Specific actions may include:
  - Improve our collective understanding of the legal mandates that guide our work (ESA, MMPA, MSA, appropriations law, contract law, etc.)
  - Host a workshop for thought leaders and stakeholders to identify data gaps and research needs.
  - During our FY20 program meetings, we will ask each science program at the Center to develop and share a 3-5 year research plan. These plans will be consolidated and shared broadly with the Center.
  - Recruit a permanent full time planning officer for the Center.
- Evaluate current projects to assess capabilities and strengths. This includes supporting our unique expertise while also developing emerging skills and capabilities.
- Improve and execute our annual project prioritization (APP) process. Improvements may include:
  - Adding accurate budget information for each project that clearly identifies the resources needed for the project by funding source (e.g. PPA and/or reimbursable).
  - Ensuring accurate and up-to-date project narratives. Projects that are inadequately described can potentially receive a low score due to lack of information.
  - Lumping smaller projects into broader categories where practical.
- Develop Center-wide data management and sample storage procedures as part of a Data Management Plan that includes an accurate inventory of Center data collections.

### ***Science to support NOAA Fisheries' mission***

[NOAA Fisheries Strategic Plan](#) identifies three broad goals:

1. Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability.
2. Conserve and recover protected species while supporting responsible fishing and resource development.
3. Improve organizational excellence and regulatory efficiency.

The Center's research provides the scientific-based evidence to support these agency goals, in particular the first two. We will continue to support this foundational work in FY20.

### ***Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability (Strategic Goal from draft West Coast Strategic Plan)***

The Center provides the science which serves as the basis for federal fishery management. The information we provide to NOAA Fisheries West Coast Region and the Pacific Fishery Management Council (Council) allows them to establish maximum yields while preventing overfishing and continuing protection of marine ecosystems. Our work under this goal also supports efforts to advance aquaculture science for finfish and shellfish.

In FY20, we will support this goal in part by continuing to:

- Fully staff surveys for West Coast groundfish, while continuing to evaluate the data collection needs and methodologies of all of our surveys.
- Support the Council by conducting full and updated stock assessments for species identified as priorities.
- Provide technical support for the US-Canada whiting treaty.
- Support economic data collection for the Catch Share Program.
- Participate in regional and national efforts to implement electronic reporting and electronic monitoring for augmenting fishery monitoring efforts, and continue to work cooperatively with the WCR and Pacific States Marine Fisheries Commission in support of the PFMCC's electronic monitoring initiative, as well as conducting Center research on enhanced electronic reporting. This will include continuing observation of the commercial groundfish and other fleets, and analysis of those data.
- Contribute to awareness of the environmental conditions impacting fisheries and coastal communities. This includes, but is not limited to:
  - data collection efforts
  - the California Current Integrated Ecosystem Assessment
  - Atlantis ecosystem modeling
  - social science and economics studies
  - establish frameworks using this information in Ecosystem Based Fisheries Management and in the Western Region Action Plan for addressing climate change impacts
  - support the Pacific Fisheries Management Council's Climate and Communities Initiative
- Continue to research on the use of eDNA, population genomics, and physiological indices as tools to aid stock assessments.
- Continue research on impacts of contaminants to marine and anadromous fish
- Continue to develop technology for sustainable aquaculture of marine finfish and shellfish including but limited to:
  - hatchery technologies, disease management and alternative feeds;
  - methods for production of sterile fish and shellfish;
  - shellfish culture and eel grass interactions.

**Conserve and recover protected species while supporting responsible fishing and resource development**

The Center conducts science that contributes to both the recovery of species listed under the Endangered Species Act and the Marine Mammal Protection Act and the protection of their habitat.

In FY20, we will support this goal in part by continuing to:

- Provide biological, social, and economic science to support the recovery of listed species, including Pacific salmon, steelhead, Puget Sound rockfish, green sturgeon, Pacific eulachon, and Southern Resident killer whales.
- Improve captive propagation methodologies and practices through our captive broodstock and hatchery reform science programs, including drawing on resources provided by our partners at Bonneville Power Administration.
- Evaluation of the genetic and epigenetic basis of life-history diversity in wild and hatchery salmon populations.

- Empirical studies to inform life-cycle models and understand environmental factors that affect salmon and steelhead life history and population dynamics.
- Coordinate and collaborate with the NOAA Fisheries West Coast Region on the Federal Columbia River Power System biological opinion and on other ESA consultations.
- Work with the West Coast Region to conduct 5 year status review updates for listed Pacific salmon and steelhead.
- Continue to work with the West Coast Region, Southwest Fisheries Science Center and the fishing industry on evaluating alternatives for reducing large whale entanglements.

## ***Regional work plans and research themes***

### **Regional work plans**

Beginning last year and continuing through FY21, NOAA Fisheries' Office of Science and Technology provides each science center a lump sum to support projects in two main categories: 1) the Ecosystem Based Fishery Management Implementation Plan and 2) the Stock Assessment Improvement Plan. Subject to HQ approval, we are required to distribute the funds in roughly equal amounts between these two areas. We cannot use these funds for federal employee salary or any other physical infrastructure needs. We expect to receive \$600k of funding in FY20 from this source.

We are proposing to NMFS HQ that we apply these funds to the following high-ranked, but under-funded projects:

- Ongoing environmental DNA ( eDNA) research (project #1013)
- Salmon responses to climate change, specifically ongoing support for the [Western Regional Action Plan](#) (WRAP) for the [NOAA Fisheries Climate Science Strategy](#) (project #4003)
- West Coast offshore Saildrone survey to evaluate utility for Pacific Hake management (project #4020)
- Environmental drivers of Hake recruitment to inform the Hake management strategy evaluation (project #4034)
- Physiological indicators of reproductive status to inform Pacific Hake stock assessment (project #2025)
- High spatial and temporal resolution stream temperature modelling in Pacific Northwest streams (project #1047)
- Attendance at CAPAM (Center for the Advancement of Population Assessment Methodology) workshop and hosting of CAPAM Natural Mortality Workshop (projects #4022 and 4023)

### **Research themes**

During the APP process, the LT identified research themes that would benefit from greater collaboration and/or focus within the Center. We emphasize that these themes are not necessarily the most important themes at the Center, rather they are areas where we saw additional coordination and collaboration most likely to improve our science efforts. We identified program managers to lead these efforts and report progress back to the Leadership Team. The themes we identified are:

1. Salmon Habitat (Rich Zabel, George Pess, and Chris Jordan) - There is considerable breadth and scope of habitat research being conducted at the Center. A strategic system

could bring questions and associated habitat data together to get a more comprehensive ecosystem picture. Specifically, this would include linking habitat relationships into salmon life-cycle models. A number of dams will also be up for FERC relicensing, so there could potentially be increased funds to support this research. Additionally, we will pursue opportunities to streamline and improve funding mechanisms for habitat research.

2. Ocean Surveys (FRAM DD, David Huff, and Sandy Parker-Stetter) - The Center conducts a number of high priority ocean surveys that provide critical information for stock assessments and integrated ecosystem assessments. However, these surveys are costly to run. With the push for more ecosystem based management, we seek to review our current complement of surveys to determine if there might be ways to streamline, enhance and better coordinate our ocean observations in support of both stock assessments and ecosystem based management.

Also, we identified several gaps where no research projects were proposed. We encourage discussion and project ideas in these areas for the next fiscal year's (FY21) APP as well as the Center's FY20 Internal Grant Program. We identified gaps related to:

- Habitat impacts (positive and negative) of finfish aquaculture activities.
- Socio-economic impacts of aquaculture.
- Reintroduction of salmon above Grand Coulee Dam (and other headwater obstacles).
- Social science studies on improving connections with our science activities as well as with stakeholders, particularly in protected resource related issues.
- Studies of genetic and ecological interactions between wild and hatchery Chinook salmon in Puget Sound and the Lower Columbia River, including hatchery reform research.

## 2. Organizational Excellence

### ***Develop excellent people (priority objective)***

We selected this as the second of our four priority objectives for FY20 from the [Vivid Description implementation plan](#). Professional development has been consistently identified as a need for the Center across surveys such as the WECT's 2019 survey and the most recent FEVS, the visioning activities, and offline interactions with staff. The ultimate responsibility for professional development lies with the employee.

In the implementation plan, we identified several possible actions we can take to create an environment where all staff are aware of career opportunities and feel they have the resources to excel and grow professionally, including:

- Identify strong and supportive leaders for supervisory roles. We plan to conduct 360 reviews for all supervisors and leaders in the Center where they will receive customized feedback from their supervisors, peers, and staff. These will be coordinated centrally to allow an assessment of common needs and strengths across the Center. Additionally, we will continue to use rotational opportunities to develop employee management skills.
- Provide training and career planning opportunities for upward and lateral career growth. Every employee will be provided the opportunity to develop an Individual Development

Plan (IDP) this year. We also intend to provide specialized training to Center employees, particularly in the areas of leadership development and quantitative methods.

- Continue support for the Center's internal grant program.
- Build and maintain a highly functioning Center Leadership Team.

### ***Build resilient and efficient administrative and support services (priority objective)***

We selected this priority objective for FY20 from the [Vivid Description implementation plan](#). To achieve a "dedication to internal customer focus," as called for in the Vivid Description, our organizational structure needs to be responsive, adaptable, and reflect the cost of doing business. We identified steps to improve policies, procedures, and operations within the boundaries of NOAA and DOC legal requirements beginning with:

- Streamlining routine administrative and support services
  - Understand the current scope and distribution of administrative and support duties across Divisions.
  - Standardize administrative and support processes across Divisions.
  - Move towards centralization of certain services.
  - Identify new technologies to support robust and effective business operations.
- Updating and communicating the Center's current standard operating procedures and policies

In order to bolster our Center budget capabilities to provide robust budget information at the Center level, we will test two new budget models this year. The first model will combine the OMI/SD and FRAM administrative staff into a single team. The second model will maintain the current decentralized budget execution structure in the CB, FE, and EFS divisions but with consistent information provided at a Center level on a monthly basis. The overarching goal of both models is to provide budget information that will allow us to put our resources toward priorities at a Center level both on a planning timescale through our APP as well as for budget execution within the year. This will ultimately facilitate better decision making for the Center.

In addition to budgeting capabilities, the FRAM/OMI model will test centralizing and standardizing related administrative services (i.e., time and attendance and travel), and will test new technologies on which to build these services. Both models will be led by a new Center Chief Financial Officer to be filled from the billet previously set as the FRAM Division Coordinator.

### ***Strive for a fair and adaptable organization (priority objective)***

We selected this priority objective for FY20 from the [Vivid Description Implementation Plan](#). As a Center, we must be able to easily address new challenges, but also continue to sustain the powerful science on topics for which we have existing expertise. We identified several actions we can take immediately to help us to work effectively and collaboratively across and between Divisions and Programs. These include:

- Share information about budgeting and spending decisions. Increasing our ability to resource priorities through more nimbly managing our resources (people, dollars, and

facilities) is a priority. In FY20 OMI and Science Division Coordinators will improve and integrate their processes for reporting real time budget information to the SD Office and Leadership Team. The eventual goal is to make better decisions around applying our resources toward our priorities. As we develop these capabilities, we also expect to be able to share budget information so that we all understand and are able to support decisions made at the Center level.

- Assess inconsistencies in disseminating information at the Center and work to standardize information-sharing processes. In FY20, we will work to address these inconsistencies and improve our business processes to ensure everybody receives the same information (e.g., job announcements, trainings, hazardous weather situations).
- Engage in periodic reviews of the Center's internal employee-led working groups. We want to assess if our organizational needs are being met by these groups and identify ways to improve them where possible. The Center currently has three internal sanctioned working groups: 1) the Facilities Working Group, 2) the Workplace Engagement and Collaboration Team, and 3) the new Diversity and Inclusion Team. Additionally we have a Data Management Advisory group, consisting of the Science Data Management Team and Division Data Coordinators. We encourage this group to develop a charter to formalize itself as a standing Center working group.
- Develop a values statement to convey the core values of the Center. These core values should reflect our commitment to providing the best science available to our stakeholders, upholding scientific integrity, and articulating how we work together and treat each other. The Center's value statement should be something every member of our Center can remember and use as a guide for how we conduct our business.

### **3. State-of-the-art Habitats for Science and People**

Due to highway construction activities and aging buildings, we are actively planning for our facility needs in the near future. We strive to be proactive and thoughtful about the changes that many of our labs and office spaces will undergo. Maintaining a safe, secure, and professional workplace is our utmost concern, and several facilities-related decisions will be front-and-center this year.

#### ***Understanding our alternatives for the Montlake campus.***

We expect to complete the Analysis of Alternatives (AOA) for our Montlake campus by the spring of 2020. This AOA will identify one or more preferred alternatives that include: 1) recapitalizing our current campus, 2) relocating to a federally owned facility (for example, NOAA's Western Region Center), or 3) relocating to a leased facility (for example, a building at or near the University of Washington). We expect this AOA to inform future appropriations to mitigate against the impacts of the forthcoming SR 520 highway construction, especially the Portage Bay phase of construction which is expected to begin in 2024.

#### ***Mukilteo new construction***

We expect to award a design/build contract midway through FY20 that will cover the demolition of our current facility there as well as the construction of a new facility. That funding has been fully secured and we look forward to opening the new building sometime in 2022.



#### **4. Partnership, Public Outreach, and Education**

The items identified in the Partnership, Outreach and Education section of the Vision implementation plan, while not among our top four priority objectives for FY20, will guide our actions for the coming year. This is because we cannot succeed in our mission by operating in a vacuum. Working with others remains a core principle of the Center.

##### ***Communicate and engage***

The Center will continue to build and foster relationships with our collaborators, internal audiences, and external stakeholders including media, Congress, and the public. The Communication Team provides valuable services to help us communicate. However, all staff and team members represent the Center and play a role in communicating the Center's value and scientific findings to those who can most affect or be affected by our actions.

As a public science agency, we have both a responsibility and a unique position to share our knowledge and educate others about the impact of our work on daily life. Doing so will involve the Center working together to:

- Communicate the findings of our research and lend our expertise to hot topics (e.g., marine heatwave, salmon recovery, southern resident killer whales). This also includes, identifying opportunities to share the often behind-the-scenes story of science and providing a glimpse at researchers conducting field/lab work (e.g, FEAT blog, International Year of the Salmon cruise).
- Dedicate time to make public-facing materials understandable and relevant through the use of graphics, plain language, and story-telling.
- Identify key communication competencies for all staff (as distinct from the advanced skills held by the Science Communications Team) and develop or otherwise make available training opportunities.
- Identify and share with staff a variety of high impact events that provide staff an opportunity to engage with stakeholders (e.g., public, schools, media) about our science.
- Support staff participation in targeted outreach to diverse audiences that builds the next generation of scientists and increases science literacy of the public.
- Improve the tools we use to communicate. This will include integrating our website with the national site, NOAAFisheries.gov, and our manuscript tracking database with the national Research Publication Tracking System (RPTS).

##### ***Promote effective collaborations and positive relationships***

We will continue to leverage the power of partnerships and reinforce effective collaborations. To advance these relationships, Center leadership and staff (including the communications team) working together will:

- Encourage project leaders to integrate communication into project planning generally and the APP in particular. Projects should identify key stakeholders and a plan to share relevant information and findings along the way.
- Encourage disciplined evaluation of collaborations to examine the costs and benefits of initiating a new or maintaining an existing collaboration. We particularly encourage

collaborations with other NMFS Science Centers, West Coast Regional Office, and NMFS HQ.

## FY20 BUDGET AND STAFFING OUTLOOK

### Budget

As with most federal agencies, the Center's budget largely comes from annual federal appropriations. Each year, the President proposes a budget to Congress. Congress then develops a budget through the appropriations committees in both the House of Representatives and the Senate. Each of these committees develops its own proposed budget for the federal government. These proposed budgets are referred to as "marks" (e.g. the House mark and Senate mark).

In FY19, the Center's overall budget was actually lower as compared to recent budgets. The Center did receive modest increases in funding for Protected Resources (directed toward Southern Resident killer whales), Pacific salmon, and aquaculture in our base (permanent) budget allocation. However we saw decreases in temporary funds as well as reimbursable dollars. If you're interested, you can read more about the [Center's FY19 budget allocation](#) as well as see the [comparisons to previous years here](#).

Over this past summer, Congress and the President agreed to a budget deal. This effectively ended the decade-long budget sequester and set a 4% increase for each FY20 and FY21 for the discretionary spending limit for non-defense agencies. In addition, the normal appropriations process is continuing. While we do not have an enacted appropriation for NOAA and NMFS for FY20, we do have information about the budget from the [President's proposed FY20 budget](#) including the [detailed "blue book" for NOAA](#), the [House mark](#), and the [Senate mark](#).

Similar to last year, the FY20 President's budget emphasized closing the seafood trade deficit through prioritizing surveys, stock assessments, and aquaculture while reducing both overall and budget line budget numbers relative to FY19, and in some cases significantly so. In particular:

- **Seafood Trade Deficit** - "The U.S. trade deficit in seafood has grown to over \$16 billion. NOAA is implementing a comprehensive approach to reduce the seafood trade deficit and promote economic development. These efforts include expanding aquaculture production, reducing unnecessary regulations on domestic wild-caught fisheries, and ensuring fair trade with exporting nations."
- **Aquaculture** - "The U.S. has the second largest Exclusive Economic Zone (EEZ) in the world, but ranks 16th in the world in aquaculture. Commercial marine aquaculture has not flourished in U.S. waters due to an uncertain and conflicting regulatory environment. To overcome these burdens and substantially increase domestic aquaculture production over the next decade, NOAA aims to facilitate permitting and siting of aquaculture facilities, promote business development, and advance research... This Budget includes an investment to support aquaculture production by assisting industry with regulatory compliance and conducting priority research. NOAA would help to identify optimal

locations and provide technical assistance with navigating complicated state and Federal regulations. Funding also supports Federal labs to study feed options, disease, hatchery production, and other challenges faced by industry. NOAA will continue working with regional pilot projects in collaboration with industry and other partners, and develop, test, and transfer the results of aquaculture research to the seafood industry in a manner that benefits the Nation's economy and creates new jobs. "

- **Fisheries management** - "The U.S. leads the world in sustainable fishery management through a stakeholder driven process with eight Regional Fishery Management Councils (Councils) resulting in over \$212 billion contribution to the U.S. economy and 1.7 million jobs. NOAA is committed to reducing the regulatory burden on the U.S. domestic seafood industry to promote seafood production and competitiveness. To increase value from our federally-managed fisheries and fully utilize these resources, NOAA is working closely with the Councils on appropriate revisions to regulations to make our fishermen more effective, efficient, and competitive."

The House mark emphasized many aspects of the NMFS mission and proposed to reject many of the budget reductions proposed by the President's budget. In particular, the House mark supports:

- **Southern Resident Killer Whales** - "Within the amount provided for Marine Mammals, Sea Turtles, and Other Species, the Committee provides not less than \$1,500,000 for the Southern Resident Killer Whales program to increase research and monitoring to improve the recovery of the species."
- **New Obligations Under the 2018 Recertification of the Pacific Salmon Treaty** - "The recommendation includes \$30,000,000 for activities related to the 2018 Recertification of the Pacific Salmon Treaty. Within these funds, the Committee directs NOAA to develop and implement a plan to maximize the increase of relevant salmon stocks through the implementation of actions referenced in the treaty and supporting agreements, in addition to activities funded under the Salmon Management Activities line. The Committee is frustrated by the lack of information from the Administration regarding the Federal responsibilities related to the recent recertification of the Pacific Salmon Treaty and directs the Department, prior to the obligation of any funds and within 60 days of enactment of this Act, to brief the Committee on this plan. Further, NOAA is directed to provide the Committee with biannual status reports on these activities and their impact on salmon stocks, beginning no later than 180 days after the enactment of this Act."
- **Stock Assessments** - Maintains the cooperative research program and that "this research is ingested into fishery stock assessments in a timely manner."
- **Mitchell Act Hatchery Programs** - "From the funds provided for Salmon Management Activities and 2018 Recertification of the Pacific Salmon Treaty, NOAA shall provide no less than \$25,000,000 for Mitchell Act activities, which enable Federal agencies to work with Oregon, Washington, and Idaho to establish and operate a series of hatcheries and passage facilities to improve declining fish runs in the Columbia River, ensure the conservation of these critical natural resources, maintain economically viable tribal, commercial, and sports fisheries, and provide prey for Southern Resident killer whales."
- **Catch Shares** - Continues the catch share program at FY19 levels.
- **Habitat Conservation and Restoration** - continues support for habitat research, rejecting cuts in the President's budget.

Similar to the House mark, the Senate mark rejects many of the budget cuts proposed by the President's budget while providing guidance on many areas of the NMFS mission including:

- **Pacific Salmon** - "Within the funding provided for Pacific Salmon, NOAA shall consider expanding salmonid monitoring activities, including through the use of tags and acoustic tracking to utilize real-time monitoring to avoid impacts to protected species. NOAA is also encouraged to work with partners to address the backlog of hatchery genetic management plans and expedite approval."
- **NMFS Staffing** - "The Committee acknowledges that NMFS regional and scientific staff are most effective in meeting their mission when located in the communities they serve. To the greatest extent practicable, the Committee directs NMFS to proactively station regional science center staff and leadership within the regions they serve."
- **Fisheries Surveys** - "The Committee is concerned that NMFS is not prioritizing and maintaining the needed level of fisheries survey coverage, despite having received more than adequate funding from the Committee in previous fiscal years to do so. The Committee notes that any reduction in fisheries survey coverage is unacceptable, especially in areas where the distribution of fish stocks are changing due to climate change. Therefore, an additional \$2,000,000 above the fiscal year 2019 enacted level is provided for NMFS to maintain historical levels of fisheries survey coverage in fiscal year 2020. At this funding level the Committee expects NMFS to contract no less than five vessels for Alaskan bottom trawl surveys and cooperative research, and no less than four vessels for west coast groundfish surveys. Further, NMFS shall provide the Committee, concurrent with the submission the fiscal year 2020 spending plan, a detailed accounting of how funding within Fisheries Data Collections, Surveys and Assessments will be allocated by region for fisheries surveys and assessments as well as how that compares with the levels provided in fiscal years 2017, 2018, and 2019."
- **Northwest Fisheries Ecosystem Monitoring System** - "The Committee recognizes the importance of long-term data series monitoring ocean conditions and ecological indicators. This information is important in management decisions for salmon and other marine species, and to enable advanced forecasting capabilities for early detection of ocean conditions known to produce harmful toxins that affect regional fisheries closures. Within funds for Fisheries Data Collections, Surveys and Assessments, the Committee provides \$500,000 to maintain a time-series monitoring system that includes no less than monthly data collection, analysis, and dissemination of hydrographic and ecological data to inform fishery management on the Northern California Current."
- **Cooperative Research** - "Depleted fish stocks result in significant economic losses to our Nation. At a time when fishing opportunities are constrained by uncertainty in stock assessments and increased access to healthy stocks depends on better data, the Committee believes that maintenance of ongoing monitoring programs, surveys, and improved research is critical. The Committee encourages NMFS to continue to prioritize long-time series surveys that are conducted cooperatively with industry and States. NMFS is additionally encouraged to prioritize studies using video systems deployed in commercial trawl nets for surveys conducted cooperatively with States, industry, and nonprofit institutions that can be validated and incorporated into survey data. NMFS is also encouraged to focus on improved understanding of natural mortality and relative gear efficiency to ensure accurate measures of catchability."
- **Electronic Monitoring and Reporting** - "Within Fisheries Ecosystem Science Programs and Services, the Committee provides no less than the fiscal year 2019 level for EM/ER to support the development, testing, and installation of EM/ER technologies across the

country. The Committee recognizes that advancements in EM/ER have the potential to cut costs and improve data collection for most U.S. fisheries. NMFS is directed to prioritize EM/ER implementation in fiscal year 2020, and expedite to the fullest extent practicable the transition to full EM/ER. Within the funds provided for these activities, not less than \$3,500,000 shall be available, in accordance with 16 U.S.C. 3701, for collaborative partnerships that include non-Federal matching funds to implement cost-shared EM/ER programs that support fisheries conservation and management. During the development and implementation of electronic reporting and monitoring programs, NOAA shall consult directly with industry and work through the Fishery Management Councils (established under sections 1851 and 1852 of title 16, United States Code) to develop appropriate cost-sharing arrangements that are commensurate with the ex-vessel value of the fishery.”

- **Regional Pilots in Sustainable Aquaculture** - “The NMFS Aquaculture Office is directed to continue regional pilot programs for partnerships between the seafood industry and community partners that can develop, validate, and deploy economically and environmentally sustainable aquatic farming techniques and regional business practices to grow domestic seafood production. To maximize the impact of these pilot grants, NMFS is encouraged to give priority consideration to promising but less commercially developed technologies, such as those targeting shellfish, seaweed, and other relative newcomers to the domestic aquaculture industry. The Committee provides \$2,500,000 in the NMFS Aquaculture budget for this purpose. This funding is in addition to the laboratory funding for NOAA’s fisheries science centers engaged in aquaculture research, which shall be funded at no less than the fiscal year 2019 enacted level.
- **Aquaculture Activities at Fisheries Science Centers** - “The Committee remains concerned about the staffing levels at NMFS fisheries science centers. NOAA is encouraged to grow staffing levels and improve resources and facilities at the Northeast and Northwest Fisheries Science Centers to return staffing levels to those in fiscal year 2010.”
- **Salmon Management Activities** - “Within the amount provided for Salmon Management activities, the Committee recommends \$34,500,000, an increase of \$19,000,000 above fiscal year 2019, to enable NOAA, the Pacific States, and tribal communities to begin implementation of the obligations set forth in the 2018 Pacific Salmon Treaty. Before any of these funds may be obligated, NOAA is directed to provide the Committee with a detailed spending plan that is reflective of the funding recommendations produced by the U.S. section of the Pacific Salmon Commission and that strikes an appropriate balance between annual and initial funding needs. In doing so, NOAA is directed to consult with the Pacific States, tribal communities, and other stakeholders. Further, NOAA is encouraged to minimize, to the extent practicable, the amount of funds withheld for administrative expenses.”
- **Genetic Stock Identification** - “The Committee supports continued research and testing of genetic stock identification [GSI] management techniques in the Pacific salmon fishery to meet the dual purpose of protecting declining and the ESA listed stocks, while allowing for sustainable commercial and recreational access to healthy stocks in the wild. NMFS shall continue to support GSI research, including the collection, analysis, and testing of methods that rely on genetics-based data to identify and track the location of federally protected stocks in the wild.”

During the last week of September 2019, the Congress passed a [Continuing Resolution](#) (CR) to

fund the government through November 21, 2019. The president is expected to sign this CR. None of the provisions in the House or Senate mark will take effect until a final appropriation is passed with final direction to the agency within it.

## **Staffing**

Staffing is the most important, but also the most expensive, Center resource. Despite some potential funding increases, the Center's labor costs remain higher than optimal compared to our total budget, so we are planning for no net increase in labor costs in FY20. With rising costs per employee, this has resulted in [fewer FTEs each year since 2012](#). That said, we do anticipate hires in each Division this year to fill positions most important to the Center's priorities and vision. Given the small number of hires expected, coupled with the Center's very low attrition rate, we will need to strongly emphasize succession planning, professional and leadership development, opportunities to reassign existing staff to higher priorities, and efforts to improve inclusion and diversity. All of these are necessary to maximize the investments we make in our workforce.